

vital action, which becomes rapidly coloured whilst the circulation continues active. On the inner surface of the cell-wall, whilst rotation is going on, the author observed a luminous stratum suggesting the action of cilia, but in every observation, as the dye permeated the tissue and the circulation ceased, the true cell-wall became covered with irregular markings, either corrugated or having raised excrescences, scarcely alike in any two cells; in no case were the markings visible until the rotation had ceased, and they had the appearance which would be produced by cilia falling against the cell-wall in all positions upon the suspension of vital action.

The chlorophyll-vesicles appear in three forms—in a gelatinous sac or mass rotating altogether in the cells, as independent vesicles apparently homogeneous in their structure, rendered opaque by colouring matter, and, lastly, as independent vesicles somewhat increased in size, of a pale green colour, almost transparent, containing nuclei, one, two, or three in number, which in reality appear to be immature vesicles within the parent, similar to *Volvox globator*, without rotatory motion. The chlorophyll-vesicles appear to resist the action of the magenta for some time after their rotation has ceased, indicating a vitality, at least to a certain extent, independent of that of the cell. In some of the experiments a few of the cells assumed a purplish colour, whilst in the adjoining cells the circulation was active and the chlorophyll green; in those the chlorophyll appeared to be decomposed, and the cell to be nearly full of very minute dots, swarming like the granules in *Closterium lunula*. Upon this subject the author offered no opinion. The observations were made with  $\frac{1}{5}$ th and  $\frac{1}{8}$ th objectives; and the paper contained minutiae of several experiments, with the hours of observation, temperature of the room, and other particulars.—*Proceedings of the Literary and Philosophical Society of Manchester*, March 1863.

#### *The Ringed Seal (Phoca fœtida).*

A specimen of this animal was caught at Aberystwith during last month, and has been exhibited alive in London. It is now in the Collection of the British Museum.—J. E. GRAY.

#### *On the Nature of the Gas produced from the Decomposition of Carbonic Acid by Leaves exposed to the Light.* By M. BOUSSINGAULT.

In an interesting paper in the 'Ann. Sc. Nat.' (Bot.) sér. 4, vol. xvi. pp. 1-27, 1862, referring to the history of discovery in respect to the relations of plants to the atmosphere, Boussingault remarks that Bonnet first took notice of the emission of air from the surface of leaves. Priestley recognized this air to be oxygen; Ingenhous showed the presence of light to be necessary; and Senebier proved that the oxygen gas eliminated by leaves under the light of the sun